



<p>ESOCast Episode 59: Chile Chill 4</p>	
<p>00:00 ESOCast intro 1. This is the ESOCast! Cutting-edge science and life behind the scenes at ESO, the European Southern Observatory.</p>	<p>Images: ESOCast introduction</p>
<p>00:20 2. The MPG/ESO 2.2-metre telescope is located at the La Silla Observatory in Chile.</p> <p>It has been on loan to ESO from the Max Planck Society since 1984.</p> <p>After almost 30 years, ESO will no longer offer the telescope to its users.</p> <p>But don't worry: the Max Planck Society will continue to use it.</p> <p>The 2.2-metre telescope has produced a wealth of stunning astronomical images.</p> <p>Here are some of our favourites ☺</p>	<p>2.2-metre images</p>
<p>00:53 3. Our natural satellite, captured in fine detail by the 2.2-metre. A near-infrared filter was used.</p>	<p>1999 — The Waning Moon</p>

<p>01:04 4. A nearby galaxy, similar to the Milky Way. It is seen almost edge-on, so the spiral structure can hardly be seen.</p>	<p>1999 — Spiral Galaxy NGC 4945</p>
<p>01:13 5. A region towards the plane of the Milky Way, sprinkled with thousands of stars. Some background galaxies are revealed that point the way towards a huge concentration of mass in the Universe.</p>	<p>1999 — The Great Attractor</p>
<p>01:23 6. A stellar nursery of gas and dust in the process of being destroyed by the ultraviolet radiation from hot stars in the star cluster NGC 6193, seen to the left.</p>	<p>1999 — Star-Forming Region RCW 108</p>
<p>01:34 7. A deep view of a tiny patch of sky. The faintest objects in this image are nearly 100 million times fainter than can be seen with the unaided eye.</p>	<p>2001 — The Capodimonte Deep Field</p>
<p>01:44 8. Located in the Large Magellanic Cloud, a nearby galaxy, this is a cloud of hydrogen, glowing red due to the radiation of young stars.</p>	<p>2003 — The N44 Nebula</p>
<p>01:54 9. These bright patches of nebulosity resemble the legs of a spider. They extend from a central “body” where a cluster of hot stars illuminates the surrounding clouds of gas.</p>	<p>2004 — LMC Region Near the Tarantula Nebula</p>
<p>02:04 10. A very active stellar nursery, where new stars are born continuously from large clouds of dust and gas. These brilliant young stars are just a few million years old.</p>	<p>2005 — NGC 2467 and Surroundings</p>

<p>02:14 11. This image shows the vast and intricate structures of this extraordinary nebula. It is a monstrous stellar factory, the largest emission nebula in the Local Group of galaxies.</p>	<p>2006 — The Tarantula Nebula and Surroundings</p>
<p>02:25 12. This smaller look-alike of our own Milky Way shines with the light of billions of stars and the ruby red glow of hydrogen gas.</p>	<p>2008 — Spiral Galaxy Messier 83</p>
<p>02:35 13. Millions of distant galaxies were revealed in this deep observation, some are so far away that their light has travelled for 12 billion years to reach us.</p>	<p>2008 — The Chandra Deep Field South</p>
<p>02:46 14. This huge star cluster appears as big in the sky as the full Moon. It is located about 17 000 light-years from us in the constellation of Centaurus.</p>	<p>2008 — The Globular Cluster Omega Centauri</p>
<p>02:56 15. Gas clouds glowing red under the intense ultraviolet light from stars that are hotter, younger and more massive than our own Sun.</p>	<p>2008 — NGC 2264 and the Christmas Tree Cluster</p>
<p>03:06 16. 13 million light-years away, 70 000 light-years across and host to many massive and dusty stellar nurseries. At its centre there appears to be a supermassive black hole.</p>	<p>2009 — Spiral Galaxy NGC 253</p>
<p>03:16 17. A stellar nursery where infant star clusters carve out monster columns of dust and gas. The “pillars of creation”, made famous by a Hubble image, are at the centre of this nebula.</p>	<p>2009 — The Eagle Nebula</p>

<p>03:27 18. This spectacular planetary nebula is made out of shells of gas that were blown off from a star's surface. The main ring is two light-years across, or half the distance between the Sun and the closest star.</p>	<p>2009 — The Helix Nebula</p>
<p>03:37 19. The Trifid Nebula takes its name from the dark dust bands that trisect its glowing heart. It is a rare combination of three nebula types: emission, reflection and dark, and is full of freshly formed stars.</p>	<p>2009 — The Trifid Nebula</p>
<p>03:48 20. This nebula extends in the sky over an area eight times that of the full Moon. It is a giant interstellar cloud where stars are forming.</p>	<p>2009 — The Lagoon Nebula</p>
<p>03:58 21. The brightest star-forming region in the neighbouring Small Magellanic Cloud galaxy, some 210 000 light-years away from Earth.</p>	<p>2010 — Star-Forming Region NGC 346</p>
<p>04:08 22. The star R Coronae Australis lies inside this intriguing complex of blue reflection nebulae and clouds of dust.</p>	<p>2010 — The R Coronae Australis Region</p>
<p>04:18 23. A 50-hour exposure image reveals the structure of this spiral galaxy in exquisite detail.</p>	<p>2010 — Spiral Galaxy NGC 300</p>
<p>04:28 24. A very active star-forming region with dark lanes of cool dust silhouetted against the glowing nebula gas that surrounds its many clusters of stars.</p>	<p>2010 — The Eta Carina Nebula</p>

<p>04:38 25. This galaxy's lopsided appearance is thought to be due to gravitational interactions with another galaxy at some point in its history.</p>	<p>2011 — The Meathook Galaxy</p>
<p>04:49 26. A cloud of gas and newborn stars that lies around 6500 light-years away from us. Can you see the running chicken?</p>	<p>2011 — The Running Chicken Nebula</p>
<p>05:00 27. A very active star-forming region around the Tarantula Nebula. The stars in the area appear yellow-red because of the effects of dust.</p>	<p>2011 — Star-Forming Region Around the Tarantula Nebula</p>
<p>05:10 28. One of the closest spiral galaxies of the southern sky. Many stars, as well as glowing pink clouds of hydrogen can be made out in the loose and ragged spiral arms.</p>	<p>2011 — The Spiral Galaxy NGC 247</p>
<p>05:20 29. A fine example of a reflection nebula, the blue light coming from hot stars is scattered by dust grains.</p>	<p>2011 — Reflection Nebula Messier 78</p>
<p>05:30 30. One of the most easily recognisable and best-studied celestial objects. It is a huge complex of gas and dust where massive stars are forming, and the closest such region to the Earth.</p>	<p>2011 — The Orion Nebula</p>
<p>05:40 31. An elliptical galaxy, disturbed by a broad and patchy band obscuring its centre. The dark band harbours large amounts of gas, dust and young stars.</p>	<p>2012 — Centaurus A</p>

<p>05:50 32. The intense ultraviolet radiation from several hot young stars causes the gas cloud to glow with rich colours and has carved out a cavity in the surrounding gas and dust.</p>	<p>2012 — The Star Formation Region NGC 3324</p>
<p>06:01 33. The Pipe Nebula is a prime example of a dark nebula, a cloud of interstellar dust so thick it can block out the light from the stars beyond.</p>	<p>2012 — The Mouthpiece of the Pipe Nebula</p>
<p>06:11 34. One of the most active star formation regions in our galaxy. It contains many massive, young blue stars formed in the last few million years.</p>	<p>2012 — Cat's Paw Nebula</p>
<p>06:21 35. This peculiar cloud of glowing gas is part of a huge ring of wreckage left over after a supernova explosion that took place about 11 000 years ago.</p>	<p>2012 — The Pencil Nebula</p>
<p>06:32 36. A stellar nursery nicknamed the Seagull Nebula. The brilliant young star — HD 53367 — accounts for most of the radiation making the clouds of gas glow.</p>	<p>2012 — The Seagull Nebula</p>
<p>06:42 37. A dark cloud where new stars are forming along with a cluster of brilliant stars that have already emerged from their dusty stellar nursery.</p>	<p>2013 — Lupus 3 Dark Cloud and Associated Hot Young Stars</p>
<p>06:52 38. An odd couple. A group of young blue stars and a neighbouring dark cloud of dust. In the background, millions of glowing stars from the brightest part of the Milky Way can be seen.</p>	<p>2013 — Star Cluster NGC 6520 and Dark Cloud Barnard 86</p>

<p>07:04 39. A cluster of very young stars in the southern constellation of Vela (The Sail).</p>	<p>2013 — The Open Star Cluster NGC 2547</p>
<p>07:13 40. A vast spherical cluster of very old stars in the southern constellation of Pavo (The Peacock).</p>	<p>2013 — The globular star cluster NGC 6752</p>
<p>07:25 [Outro]</p>	<p>ESOcast is produced by ESO, the European Southern Observatory.</p> <p><i>ESO, the European Southern Observatory, is the pre-eminent intergovernmental science and technology organisation in astronomy designing, constructing and operating the world's most advanced ground-based telescopes.</i></p>

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